

NOTES ON NEW AND NOTEWORTHY PLANTS. CIII

Harold N. Moldenke

CLERODENDRUM FLORIBUNDUM var. ANGUSTIFOLIUM Moldenke, var. nov.

Haec varietas a forma typica speciei foliis minoribus laminis anguste ellipticis plerumque ca. 4--7 cm. longis 1--3 cm. latis ad apicem acuminatis ad basin acutis vel subacuminatis recedit.

This variety differs from the typical form of the species in its leaf-blades being narrowly elliptic, mostly ca. 4--7 cm. long and 1--3 cm. wide, acuminate at the apex and acute or subacuminate at the base.

The type of this variety was collected by Cyril Tenison White (no. 8675) at Tarrens Creek, North Queensland, Australia, on March 19, 1933, and is deposited in the B. A. Krukoff Herbarium at the New York Botanical Garden. The collector notes that it is a fairly common shrub in rocky places, the flower white and faintly scented.

ADDITIONAL NOTES ON THE ERIOCAULACEAE. LXXIII

Harold N. Moldenke

LACHNOCAULON ECILIATUM Small

Additional bibliography: Moldenke, *Phytologia* 36: 497. 1977.

Additional citations: FLORIDA: Highlands Co.: Brass 14545 (W--2065050). Lake Co.: Biltmore Herb. 15001d (N). Putnam Co.: R. . M. Harper 7 (N). Walton Co.: Curtiss 3022 (W--45319--isotype, W--936874--isotype).

LACHNOCAULON EKMANNII Ruhl.

Additional & emended bibliography: León, Fl. Cuba, imp. 1, 1: 284 & 426. 1946; Moldenke, *Phytologia* 33: 21. 1976.

Additional citations: CUBA: Pinar del Río: Shafer 11011 (W--718184).

LACHNOCAULON ENGLERI Ruhl.

Additional bibliography: Moldenke, *Phytologia* 33: 21 (1976), 35: 111 (1977), and 36: 29. 1977.

Brass describes this plant as having brown flower-heads or "heads appearing gray (dark brown under a microscope)" and found it "plentiful in crowded tufts on sandy and mucky shores of lake" and "very abundant on damp lake shores, bright-green somewhat fleshy tufts 5--10 cm. tall". It has been collected in flower and fruit in February and April by recent collectors.

A small fragment (two scapes) of this species appearing on the Herb. Chapman s.n. [St. Andrew's Bay] collection, cited below, appears to have been mounted accidentally on a sheet of C. Mohr s.n. [Aug. 18, 1879] from Mobile County, Alabama (which is L. beyrichianum) in the United States National Herbarium. I do not consider the presence of this fragmentary material on the Mohr sheet as evidence of the occurrence of L. engleri in Alabama.

The Brass 14545, distributed as L. engleri, actually is L. eciliatum Small, while O'Neill 7785 is the type collection of L. engleri f. abludens Moldenke, Shafer 11011 is L. ekmannii Ruhl., and Curtiss 5911 is L. minus (Chapm.) Small. O'Neill 7785 & 7785a are mixtures of typical L. engleri and its f. abludens, which obviously grow in close proximity.

Additional citations: FLORIDA: Bay Co.: Herb. Chapman s.n. [St. Andrew's Bay] (W-957074). Highlands Co.: Brass 14660 (W-2065107), 15066 (W-2065323). Lake Co.: Nash 1184 (W-936871--isotype). Martin Co.: R. Kral 18235 (W-2470383), 20386 (W-2470384). Orange Co.: O'Neill s.n. [Lake Oia, July 2, 1929] (W-1488704). Volusia Co.: R. Kral 18426 (W--2470303). Walton Co.: R. Kral 17746 (W-2470437).

LACHNOCAULON ENGLERI f. ABLUDENS Moldenke, Phytologia 35: 111. 1977.

Bibliography: Moldenke, Phytologia 35: 111 (1977) and 36: 29. 1977.

Citations: FLORIDA: Pasco Co.: O'Neill 7785 in part (I-isotype, N-isotype, W-1790170--type).

LACHNOCAULON FLORIDANUM Small

Additional bibliography: Lakela, Long, Fleming, & Genelle, Fl. Tampa Bay, ed. 3 [Bot. Lab. Univ. S. Fla. Contrib. 73:] 38 & 165. 1976; Long & Lakela, Fl. Trop. Fla., ed. 2, 262 & 944. 1976; Moldenke, Phytologia 35: 14. 1976.

Lakela and her associates (1976) reduce this species to synonymy under L. anceps (Walt.) Morong, but its superficial habitual resemblance is much more like L. minus (Chapm.) Small.

Additional citations: FLORIDA: Lake Co.: Nash 1981 (W-252418--isotype).

LACHNOCAULON GLABRUM Körn.

Additional bibliography: Moldenke, Phytologia 29: 287. 1974; Lakela, Long, Fleming, & Genelle, Fl. Tampa Bay, ed. 3 [Bot. Lab. Univ. S. Fla. Contrib. 73:] 38 & 165. 1976; Long & Lakela, Fl. Trop. Fla., ed. 2, 262 & 944. 1976; Moldenke, Phytologia 36: 57. 1977.

Lakela and her associates (1976) regard this taxon as conspecific with L. anceps (Walt.) Morong, but in this I do not agree.

Material of L. glabrum has been misidentified and distributed in some herbaria as L. anceps (Walt.) Morong. On the other hand,

the Garber 37, s.n. [Tampa, Sept. 1877], & s.n. [Levy Co., Nov. 1877], distributed as L. glabrum, actually are Eriocaulon rave-nelii Chapm., Mohr s.n. [Aug. 18, 1879] is Lachnocaulon beyrichianum Sporleder, Curtiss 3022 is the type collection of L. eciliatum Small, Nash 1981 is the type collection of L. floridanum Small, and Curtiss 6911 is L. minus (Chapm.) Small. R. Kral 20418 appears to be a mixture of L. glabrum and L. beyrichianum — the collector notes that the two species were growing together.

Additional citations: FLORIDA: Charlotte Co.: R. Kral 18048 (W—2470365). Lee Co.: Francis 60 (W—1036538); Harshberger s.n. [Ft. Myers, June 5th, 1912] (W—692008); A. S. Hitchcock 374 (W—387407); R. Kral 18012 (W—2470339); J. P. Standley 33 (W—569490); P. C. Standley 52589 (W—1308788). Martin Co.: R. Kral 18288 (W—2470366). Saint Lucie Co.: R. Kral 20424 (W—2470296).

LACHNOCAULON MINUS (Chapm.) Small

Additional bibliography: Lakela, Long, Fleming, & Genelle, Fl. Tampa Bay, ed. 3 [Bot. Lab. Univ. S. Fla. Contrib. 73:] 39 & 165. 1976; Long & Lakela, Fl. Trop. Fla., ed. 2, 260, 262, & 944. 1976; Moldenke, Phytologia 35: 14 (1976) and 36: 29. 1977.

Lakela and her associates (1976) include L. eciliatum Small in the synonymy of L. minus.

Material of L. minus has sometimes been misidentified and distributed in some herbaria as L. anceps (Walt.) Morong and as Syn-gonanthus flavidulus (Michx.) Ruhl. On the other hand, the Ar-sène 12142 & 12315, M. A. Chase 3153, and Drushel 10141, distributed as L. minus, actually are L. anceps and House 2685 is L. anceps f. glabrescens Moldenke.

Additional citations: NORTH CAROLINA: Brunswick Co.: Bradley & Stevenson 3306 (W—2499743); Godfrey & Fox 49472 (W—2006817). New Hanover Co.: Godfrey Pl. Exsicc. Gray. 926 (W—1823367). Onslow Co.: J. Kohlmeyer 2034 (Hm); R. Kral 22472 (W—2470439). SOUTH CAROLINA: Georgetown Co.: R. Kral 19018 (W—2470438). GEORGIA: Baker Co.: Thorne 5066 (W—2005959). Lowndes Co.: R. M. Harper 1607 (W—431915). FLORIDA: Bay Co.: R. Kral 15637 (W—2470376). Highlands Co.: Webster 4179 (Mi, W—2067703). Lake Co.: Nash 148 (W—223264, W—936870), 1295 (W—223174), 1855 (W—252419). Leon Co.: Godfrey 62896 (W—2433164); Kral & Godfrey s.n. [15 Aug. 1962] (W—2470385). Madison Co.: Drushel 9642 (W—1688941). Orange Co.: Meislahn 158a (W—511436); Murrill 710 (W—1928530); Wilbur & Webster 2645 (W—2132022). Pasco Co.: O'Neill 7785 in part (W—1790169), 7786 in part (W—1790171). Putnam Co.: Godfrey & Reinert 61106 (W—2385134). Seminole Co.: R. Kral 20457 (W—2470420). Volusia Co.: R. Kral 18427 (W—2470387). Wakulla Co.: E. S. Ford 4644 (W—2230971). Walton Co.: Curtiss 5911 (W—314427); R. Kral 17747 (W—2470386). ALABAMA: Mobile Co.: Mohr s.n. [April 20,

1868] (W--784499).

LEIOTHRIX Ruhl.

Additional bibliography: Cárdenas de Guevara, Act. Bot. Venez. 10: 37 & [69]. 1975; Follmann-Schrag, Excerpt. Bot. A.26: 513. 1976; Moldenke & Sm. in Reitz, Fl. Ilus. Catar. I Erio: 5, 62, 63, 72--75, 94, 98, & 100--102, pl. 8, fig. 20--26. 1976; Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: [23]--27, fig. 1 & 8, & [105]--111, fig. 1--16. 1976; Monteiro-Scanavacca, Mazzoni, & Giulietti, Bol. Bot. Univ. S. Paulo 4: [61]--72, fig. 3--15. 1976; Moldenke, Phytologia 35: 15--16, 124, & 129 (1976), 35: 310, 333, 347, 424, 427, 432, & 509 (1977), and 36: 34, 49, & 74. 1977.

LEIOTHRIX ANGUSTIFOLIA (Körn.) Ruhl.

Additional bibliography: Moldenke, Phytologia 25: 95. 1972.

Davidse and his associates found this plant growing "on [a] cliff among mosses in spray of waterfall", at 850 m. altitude, flowering and fruiting in April.

Additional citations: BRAZIL: Bahia: Davidse, Ramamoorthy, & Vital 11954 (Z).

LEIOTHRIX ARECHAVALETAE (Körn.) Ruhl.

Additional bibliography: Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: [23], 24, & 27. 1976; Moldenke, Phytologia 35: 15 (1976) and 35: 427. 1977.

Monteiro-Scanavacca and her associates (1976) report that there is no vegetative reproduction from the apex of the inflorescence in this species and cite Herter 95663.

LEIOTHRIX ARGYRODERMA var. BREVIPES Moldenke

Additional bibliography: Moldenke, Phytologia 29: 288. 1974.

Castellanos encountered this plant at 2350 m. altitude, in flower and fruit in December.

Additional citations: BRAZIL: Rio de Janeiro: A. Castellanos 25664 [Herb. FEEMA 4346] (Z).

LEIOTHRIX ARRECTA Ruhl.

Additional bibliography: Moldenke, Phytologia 25: 96--97. 1972; Cárdenas de Guevara, Act. Bot. Venez. 10: 37. 1975.

LEIOTHRIX CURVIFOLIA (Bong.) Ruhl.

Additional bibliography: Monteiro-Scanavacca & Mazzoni, Bol. Mus. Univ. S. Paulo 4: 23, 24, 26, & 27, fig. 8. 1976; Moldenke, Phytologia 35: 15 (1976) and 35: 333 & 347. 1977.

Additional illustrations: Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: 26, fig 8. 1976.

Monteiro-Scanavacca & Mazzoni (1976) report that there is no vegetative reproduction from the apex of the inflorescence in this species and cite Monteiro-Scanavacca 4892 from Minas Gerais, Brazil.

LEIOTHRIX CURVIFOLIA var. *MICROPHYLLA* Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 35: 15. 1976.

Eiten & Eiten 11012 is a mixture of this variety and Paepalanthus archeri Moldenke. It was collected in a natural open rocky campo at 1250 m. altitude, flowering and fruiting in March.

Additional citations: BRAZIL: Minas Gerais: Eiten & Eiten 11012 in part (W--2799677).

LEIOTHRIX CURVIFOLIA var. *PLANTAGO* (Mart.) Ruhl.

Additional synonymy: Leiothrix plantago Monteiro-Scanavacca, Mazzoni, & Giulietta, *Bol. Bot. Univ. S. Paulo* 4: [61], 62, & 66. 1976.

Additional bibliography: Moldenke, *Phytologia* 29: 288. 1974; Monteiro-Scanavacca, Mazzoni, & Giulietti, *Bol. Bot. Univ. S. Paulo* 4: [61], 62, 66, & 67, fig. 3. 1976; Monteiro-Scanavacca & Mazzoni, *Bol. Bot. Univ. S. Paulo* 4: [105]. 1976; Moldenke, *Phytologia* 35: 333. 1977.

Illustrations: Monteiro-Scanavacca, Mazzoni, & Giulietti, *Bol. Bot. Univ. S. Paulo* 4: 67, fig. 3. 1976.

Monteiro-Scanavacca and her associates (1976) report that there is vegetative reproduction from the apex of the inflorescence in this variety complete with leaves, stem, and adventitious roots. They cite Semir 4132 from Minas Gerais, Brazil.

LEIOTHRIX CUSCUTOIDES Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 33: 22. 1976; Monteiro-Scanavacca & Mazzoni, *Bol. Bot. Univ. S. Paulo* 4: [105]. 1976; Monteiro-Scanavacca, Mazzoni, & Giulietti, *Bol. Bot. Univ. S. Paulo* 4: [61], 62, 66, & 67, fig. 4 & 5. 1976.

Additional illustrations: Monteiro-Scanavacca, Mazzoni, & Giulietti, *Bol. Bot. S. Paulo* 4: 67, fig. 4 & 5. 1976.

Monteiro-Scanavacca and her associates (1976) assert that this species often reproduces vegetatively from the apex of the inflorescence, forming complete plants with leaves, stem, and adventitious roots, citing Giulietti 4919 from Minas Gerais, Brazil.

LEIOTHRIX DIELSII Ruhl.

Additional bibliography: Moldenke, *Phytologia* 35: 15 & 129 (1976) and 36: 74. 1977.

Strang found this plant growing in wet turf, flowering in August.

Additional citations: BRAZIL: Guanabara: Strang 677 [*Herb. FEEMA 5041*] (Ld).

LEIOTHRIX ECHINOCEPHALA Ruhl.

Additional bibliography: Moldenke, *Phytologia* 26: 44 (1973) and 33: 198. 1976.

LEIOTHRIX FLAVESCENS (Bong.) Ruhl.

Additional synonymy: Leiothrix flavescens (Bong.) Ruhl. apud Cárdenas de Guevara, *Act. Bot. Venez.* 10: 37, sphalm. 1975. Eriocaulon

elongatum "St. Hil. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 99, in syn. 1976. Paepalanthus brevifolius "Körn. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 100, in syn. 1976. Paepalanthus elongatus "Mart. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 101, in syn. 1976. Paepalanthus falcatus "Mart. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 101, in syn. 1976. Paepalanthus petrophilus "Mart. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 102, in syn. 1976. Paepalanthus xyrioides "Mart. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 102, in syn. 1976. Paepalanthus xyrioides var. brevifolius "Mart. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 102, in syn. 1976. Paepalanthus xyrioides var. brevifolius "Schreb. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 102, in syn. 1976. Paepalanthus xyrioides "St. Hil. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 102, in syn. 1976. Eriocaulon falcatum Mart. ex Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 73, sphalm. 1976.

Additional bibliography: Cárdenas de Guevara, Act. Bot. Venez. 10: 37. 1975; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 62, 63, 73--75, & 98--102, pl. 8, fig. 20--26. 1976; Moldenke, Phytologia 33: 22 (1976) and 35: 424 & 427. 1977.

Additional illustrations: Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 63, pl. 8, fig. 20--26. 1976.

Dombrowski reports this plant "frequente em banhado", flowering and fruiting in December. Castellanos encountered it in brejo (sedge meadow) and refers to the flower-heads as "white". Vernacular names reported for the species are "capim-manso", "capipoatina-amarela", "gravatá-manso", and "sempre-viva-do-campo". In southern Brazil is period of anthesis is said to be December and January.

Additional citations: BRAZIL: Minas Gerais: A. Castellanos 24182 (Pf); Monteiro de S. s.n. [19.XII.1971] (Ld). Paraná: Dombrowski 6763 (Ld); Hatschbach 35772 (Ac).

LEIOTHRIX FLAVESCENS var. ALPINA Moldenke

Additional bibliography: Moldenke, Phytologia 25: 131 (1973) and 29: 388. 1974.

LEIOTHRIX FLUITANS (Mart.) Ruhl.

Additional bibliography: Moldenke, Phytologia 29: 289. 1974; Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: [105]-111, fig. 1--16. 1976; Monteiro-Scanavacca, Mazzoni, & Giuliatti, Bol. Bot. Univ. S. Paulo 4: [61], 68, & 69, fig. 8--11. 1976.

Additional illustrations: Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: 109--111, fig. 1--16. 1976; Monteiro-Scanavacca, Mazzoni, & Giuliatti, Bol. Bot. Univ. S. Paulo 4: 69, fig. 8--11. 1976.

Monteiro-Scanavacca and her associates (1976) have studied the inflorescence apex of this species in detail and report that it shows vegetative reproduction by means of sprouting originated by the meristematic cells of the axis of the mature inflorescence after the production of all the flowers; tunica-carpus organization is present in both immature and mature meristems. The reproduction results in complete plantlets with leaves, stems, and adventitious roots. They cite Semir 4082 from Minas Gerais, Brazil.

LEIOTHRIX FULGIDA Ruhl.

Additional bibliography: Moldenke, *Phytologia* 35: 16 (1976) and 36: 74. 1977.

LEIOTHRIX GRAMINEA (Bong.) Ruhl.

Additional bibliography: Moldenke, *Phytologia* 25: 132 (1973), 29: 390 (1974), and 35: 124. 1976.

LEIOTHRIX HIRSUTA (Wikstr.) Ruhl.

Additional bibliography: Moldenke, *Phytologia* 35: 16. 1976.

Recent collectors have encountered this plant on sandy river margins and in colonies with Xyris "em alagando, porte areto, acinzentado, capítulos jovens amarelados", flowering in July, and both flowering and fruiting in January and October.

Additional citations: BRAZIL: Bahia: Hatschbach 39704 (Ld).

Guanabara: Castellanos & Strang 10 [Herb. FEEMQ 4678] (Ld), s.n. [Herb. Cent. Pesq. Florest. 6647] (Fe); Lanna Sobrinho 1577 [Herb. FEEMA 5743] (Ld).

LEIOTHRIX LUXURIANS (Körn.) Ruhl.

Additional bibliography: Moldenke, *Phytologia* 35: 16. 1976.

The Eitens have encountered this plant in "natural open rocky campo, campo rupestre vegetation", at 1250 m. altitude, in fruit in March, and distributed it as Paepalanthus sp.

Additional citations: BRAZIL: Minas Gerais: Eiten & Eiten 11022 (W--2799681).

LEIOTHRIX MUCRONATA (Bong.) Ruhl.

Additional bibliography: Moldenke, *Phytologia* 29: 291 (1974) and 33: 136. 1976.

LEIOTHRIX NUBIGENA (Kunth) Ruhl.

Additional bibliography: Moldenke, *Phytologia* 29: 291. 1974; Moldenke & Sm. in Reitz, *Fl. Ilust. Catar. I Erio*: 72 & 100. 1976.

This species has been designated the official lectotype of the genus.

LEIOTHRIX PROPINQUA (Körn.) Ruhl.

Additional bibliography: Moldenke, *Phytologia* 25: 135. 1973; Monteiro-Scanavacca & Mazzoni, *Bol. Bot. Univ. S. Paulo* 4: [105]. 1976; Monteiro-Scanavacca, Mazzoni, & Giulietti, *Bol. Bot. Univ. S. Paulo* 4: [61]—64, 70, & 71, fig. 15. 1976.

Additional illustrations: Monteiro-Scanavacca, Mazzoni, & Giulietti, Bol. Bot. Univ. S. Paulo 4: 71, fig. 15. 1976.

Monteiro-Scanavacca and her associates (1976) assert that this species reproduces vegetatively from the apex of the inflorescence with complete plantlets being formed, each with leaves, stem, and adventitious roots. They cite Giulietti 5400 from Minas Gerais, Brazil.

LEIOTHRIX RUFULA (A. St.-Hil.) Ruhl.

Additional bibliography: Moldenke, Phytologia 33: 24 (1976) and 36: 34 & 49. 1977.

LEIOTHRIX RUFULA var. **BREVIPIES** Moldenke, Phytologia 36: 49. 1977.

Bibliography: Moldenke, Phytologia 36: 34 & 49. 1977.

Citations: BRAZIL: Rio de Janeiro: A. Castellanos 25666 [Herb. FEEMA 4341] (Z-type).

LEIOTHRIX SCHLECHTENDALII (Körn.) Ruhl.

Additional bibliography: Moldenke, Phytologia 25: 136. 1973.

Hatschbach encountered this plant in "solo arenoso junta afloramentos de arenito" and "topo de morro no solo arenoso da matinha da encosta do morro", flowering and fruiting in January.

Additional citations: BRAZIL: Bahia: Hatschbach 39614 (Ld), 39694 (Z).

LEIOTHRIX SCLEROPHYLLA Alv. Silv.

Additional bibliography: Moldenke, Phytologia 33: 24. 1976; Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: [23]--27, fig. 1. 1976.

Illustrations: Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: 24, fig. 1. 1976.

Monteiro-Scanavacca & Mazzoni (1976) report that there is no vegetative reproduction from the apex of the inflorescence in this species. They cite Monteiro-Scanavacca 4895 from Minas Gerais, Brazil.

LEIOTHRIX SPIRALIS (Bong.) Ruhl.

Additional bibliography: Moldenke, Phytologia 25: 137 (1973) and 29: 390. 1974.

LEIOTHRIX TURBINATA Gleason

Additional bibliography: Moldenke, Phytologia 26: 186. 1973; Cárdenas de Guevara, Act. Bot. Venez. 10: 37. 1975.

LEIOTHRIX UMBRATILIS Moldenke

Additional bibliography: Moldenke, Phytologia 25: 137--138 (1973), 32: 47 (1975), and 34: 256. 1976.

LEIOTHRIX UMBRATILIS var. **BREVIPIES** Moldenke

Additional bibliography: Moldenke, Phytologia 33: 24 (1976) and 34: 256. 1976.

LEIOTHRIX VIVIPARA (Bong.) Ruhl.

Additional bibliography: Moldenke, *Phytologia* 35: 16. 1976; Monteiro-Scanavacca & Mazzoni, *Bol. Bot. Univ. S. Paulo* 4: [105]. 1976; Monteuro-Scanavacca, Mazzoni, & Giuliotti, *Bol. Bot. Univ. S. Paulo* 4: [61], 62, 70, & 71, fig. 12--14. 1976.

Additional illustrations: Monteiro-Scanavacca, Mazzoni, & Giuliotti, *Bol. Bot. Univ. S. Paulo* 4: 71, fig. 12--14. 1976.

Monteiro-Scanavacca and her associates (1976) report that this species reproduces vegetatively from the apex of the inflorescence, producing complete plantlets with leaves, stem, and adventitious roots. They cite Monteiro-Scanavacca 4901 from Minas Gerais, Brazil.

MESANTHEMUM Körn.

Additional bibliography: Engl., *Syllab. Pflanzenfam.*, ed. 3, 92 (1903), ed. 5, 94 (1907), and ed. 6, 99. 1909; Gilg in Engl., *Syllab. Pflanzenfam.*, ed. 7, 138 (1912), ed. 8, 140 (1919), and ed. 9 & 10, 152. 1924; Diels in Engl., *Syllab. Pflanzenfam.*, ed. 11, 154. 1936; Follmann-Schrag, *Excerpt. Bot. A.26*: 512. 1976; Moldenke, *Phytologia* 35: 16--17 (1976), 35: 303, 308, 421, 422, & 510 (1977), and 36: 470 & 507. 1977.

MESANTHEMUM BENNAE Jacques-Félix

Additional bibliography: Moldenke, *Phytologia* 25: 139 & 140. 1973.

MESANTHEMUM PRESCOTTIANUM (Bong.) Körn.

Additional bibliography: Moldenke, *Phytologia* 35: 17 (1976) and 35: 303. 1977.

MESANTHEMUM RADICANS (Benth.) Körn.

Additional bibliography: Moldenke, *Phytologia* 35: 17 (1976), 35: 421 & 422 (1977), and 36: 470. 1977.

In a letter to me from Robert Wingfield, dated April 19, 1977, he lists as representing this species on Mafia island: Batty 1443 (at "DSM" and in the East African Herbarium at Nairobi) and Greenway 5393 (at Kew and in the East African Herbarium), the latter described by Greenway in 1938 as "not quite typical of the species".

Material of *M. radicans* has been misidentified and distributed in some herbaria as Eriocaulon sp.

Additional citations: LIBERIA: J. Kohlmeyer 2358 [Herb. Hamann 1243] (Hm).

MESANTHEMUM RUTENBERGIANUM Körn.

Additional bibliography: Hocking, *Excerpt. Bot. A.26*: 89 & 90. 1975; Moldenke, *Phytologia* 35: 17. 1976.

MOLDENKEANTHUS P. Morat

Additional bibliography: Moldenke, *Phytologia* 35: 17--18 (1976) and 35: 510. 1977.

PAEPALANTHUS Mart.

Additional synonymy: Dupatia Griseb. ex Moldenke, Phytologia 36: 42, in syn. 1977.

Additional & emended bibliography: Sweet, Hort. Brit., ed. 2, 597 (1830) and ed. 3, 719. 1839; Engl., Syllab. Pflanzenfam., ed. 2, 86 (1898), ed. 3, 92 (1903), ed. 5, 94 (1907), and ed. 6, 99. 1909; Gilg in Engl., Syllab. Pflanzenfam., ed. 7, 136 & 139, fig. 140 (1912) and ed. 8, 140 & 141, fig. 140. 1919; Fedde in Just, Bot. Jahresber. 45 (1): 517 & 549. 1923; Fedde & Schust. in Just, Bot. Jahresber. 45 (1): 20. 1923; Gilg in Engl., Syllab. Pflanzenfam., ed. 9 & 10, 152, fig. 144. 1924; Diels in Engl., Syllab. Pflanzenfam. ed. 11, 154 & 155, fig. 158. 1936; León, Fl. Cuba, imp. 1, 1: 279, 281—283, & 428, fig. 113. 1946; Cárdenas de Guevara, Act. Bot. Venez. 10: 36—38 & [69]. 1976; Anon, Biol. Abstr. 61: AC1.667. 1976; Follmann-Schrag, Excerpt. Bot. A. 26: 513. 1976; Hocking, Excerpt. Bot. A. 28: 259. 1976; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 4, 41—73, 89, 84, & 98—102, pl. 6—8. 1976; Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: [23]—27, fig. 3—7, & [105]. 1976; Monteiro-Scanavacca, Mazzoni, & Giulietti, Bol. Bot. Univ. S. Paulo 4: [61], 62, 66, & 67, fig. 1 & 2. 1976; Moldenke, Phytologia 34: 485 (1976), 35: 14 & 18—36 (1976), 35: 111—131, 252—264, 277—285, 288—291, 293, 295, 304, 305, 308—310, 312, 315, 317, 318, 321, 332, 333, 336, 338—340, 346, 347, 350, 354, 359, 421—423, 425—427, 429, 431, 432, 436, 440—445, 447, 448, 451—455, 457, 508, & 510 (1977), and 36: 30—32, 35, 40, 42, 45, 49—51, 56, 65, 68, 69, 72—76, 78—82, 84, 85, 482, 504, & 508. 1977.

The Eiten & Eiten 11022, distributed as Paepalanthus sp., actually is Leiothrix luxurians (Körn.) Ruhl., while Bogner 1166 is Eriocaulon majusculum Ruhl.

PAEPALANTHUS ACANTHOPHYLLUS Ruhl.

Additional bibliography: Moldenke, Phytologia 35: 18 (1976) and 35: 258 & 284. 1977.

PAEPALANTHUS ACUMINATUS Ruhl.

Additional bibliography: Moldenke, Phytologia 25: 144—145 (1973) and 30: 122. 1975.

PAEPALANTHUS ACUTALIS Alv. Silv.

Additional bibliography: Moldenke, Phytologia 26: 187 & 200. 1973.

PAEPALANTHUS ACUTIPILUS Alv. Silv.

Additional bibliography: Moldenke, Phytologia 29: 294 (1974) and 35: 252. 1977.

PAEPALANTHUS AEQUALIS (Vell.) J. F. Macbr.

Additional bibliography: Moldenke, Phytologia 33: 28 (1976) and 35: 255. 1977.

PAEPALANTHUS ALBO-TOMENTOSUS Herzog

Additional bibliography: Moldenke, *Phytologia* 29: 295 (1974) and 30: 31. 1974.

Davidse and his associates have encountered this plant on sandy soil in low scrub forest, at 910 m. altitude, and describes the flowers as "white" in April.

Additional citations: BRAZIL: Bahia: Davidse, Ramamoorthy, & Vital 11860 (Z).

PAEPALANTHUS ALBO-VAGINATUS Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 35: 18--19. 1976; Moldenke & Sm. in Reitz, *Fl. Ilust. Catar. I Erio*: 42, 62--65, & 100, pl. 8, fig. 1--7. 1976.

Additional illustrations: Moldenke & Sm. in Reitz, *Fl. Ilust. Catar. I Erio*: 63, pl. 8, fig. 1--7. 1976.

Dombrowski asserts that this species is rather frequent in wet swamps. Vernacular names recorded for it are the usual "capim-manso", "capipoatinga", "gravatá-manso", and "sempre-viva-do-campo".

Additional citations: BRAZIL: Paraná: Dombrowski 6452 (Ld), 6624 (Ld).

PAEPALANTHUS ALBO-VILLOSUS Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 26: 187 (1973) and 35: 130 & 451. 1977.

PAEPALANTHUS ALPINUS Körn.

Additional bibliography: Moldenke, *Phytologia* 33: 28. 1976.

The Cuatrecasas 28252, distributed as P. alpinus, actually represents P. columbiensis Ruhl.

Additional citations: COLOMBIA: Department undetermined: Schwabe s.n. [II.1973] (Hm).

PAEPALANTHUS ALSINOIDES C. Wright

Additional & emended bibliography: Fedde & Schust in Just, *Bot. Jahresber.* 45 (1): 20. 1923; León, *Fl. Cuba, imp. 1*, 1: 283 & 428. 1946; Moldenke, *Phytologia* 35: 19 & 28 (1976) and 36: 42 & 45. 1977.

PAEPALANTHUS ALSINOIDES var. MINIMUS Jennings

Additional & emended bibliography: Fedde & Schust. in Just, *Bot. Jahresber.* 45 (1): 20. 1923; León, *Fl. Cuba, imp. 1*, 1: 283 & 428. 1946; Moldenke, *Phytologia* 35: 19. 1976.

PAEPALANTHUS AMOENUS (Bong.) Körn.

Additional bibliography: Moldenke, *Phytologia* 35: 19 (1976) and 35: 258, 261, & 284. 1977.

PAEPALANTHUS APPLANATUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 29: 296 (1974), 30: 120 (1975), and 33: 191 & 192. 1976.

PAEPALANTHUS ARCHERI Moldenke

Additional bibliography: Moldenke, *Phytologia* 25: 148. 1973.

The Eitens have found this plant growing in a natural open rocky campo with "campo rupestre" vegetation, at 120 m. altitude, in saturated soil, flowering in March. Their no. 11012 is a mixture with Leiothrix curvifolia var. microphylla Alv. Silv.

Additional citations: BRAZIL: Minas Gerais: Eiten & Eiten 11012 in part (W--2799677).

PAEPALANTHUS ARETIOIDES Ruhl.

Additional bibliography: Moldenke, *Phytologia* 25: 148 (1973), 29: 485 (1974), and 33: 150. 1976.

PAEPALANTHUS ARGILLICOLA Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 35: 20 (1976) and 36: 35. 1977.

PAEPALANTHUS ARGYROLINON Körn.

Additional bibliography: Moldenke, *Phytologia* 25: 149 (1973) and 26: 230. 1973.

PAEPALANTHUS BABYLONIENSIS Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 26: 136 (1973) and 35: 252. 1977.

PAEPALANTHUS BAHIENSIS (Bong.) Kunth

Additional bibliography: Moldenke, *Phytologia* 29: 297 (1974) and 35: 333. 1977.

PAEPALANTHUS BALANSAE Ruhl.

Additional bibliography: Moldenke, *Phytologia* 33: 30 & 142. 1976.

PAEPALANTHUS BARBIGER Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 33: 31. 1976; Monteiro-Scanavacca & Mazzoni, *Bol. Bot. Univ. S. Paulo* 4: [23], 24, & 26. 1976.

Monteiro-Scanavacca & Mazzoni (1976) report that there is no vegetative reproduction from the inflorescence apex in this species, citing Monteiro-Scanavacca 4893 from Minas Gerais, Brazil.

PAEPALANTHUS BARBULATUS Herzog

Additional bibliography: Moldenke, *Phytologia* 33: 31 (1976) and 35: 257. 1977.

PAEPALANTHUS BARREIRENSIS Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 26: 136 (1973) and 29: 485. 1974.

PAEPALANTHUS BIFIDUS (Schrad.) Kunth.

Additional bibliography: Cárdenas de Guevara, *Act. Bot. Venez.*

10: 36 & 37. 1975; Moldenke, *Phytologia* 35: 20 (1976), 35: 346, 347, 359, & 457 (1977), and 36: 56. 1977.

The Lasseign 21169 collection, cited below, is a mixture with *P. fasciculatus* f. *sphaerocephalus* Herzog.

Additional citations: FRENCH GUIANA: Aubréville 226 (W--2546896). BRAZIL: Amazônas: Lasseign 21169 in part (N); Prance & Lleras 23719 (Ld, N).

PAEPALANTHUS BIFIDUS f. FRUSTUS Moldenke

Additional bibliography: Moldenke, *Phytologia* 29: 298--299 (1974) and 31: 382, 397, 398, & 404. 1975.

PAEPALANTHUS BIFRONS Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 35: 21 (1976) and 35: 284. 1977.

PAEPALANTHUS BLEPHAROPHORUS (Bong.) Kunth

Additional bibliography: Moldenke, *Phytologia* 29: 300 & 484 (1974) and 30: 49 & 342. 1975.

PAEPALANTHUS BOMBACINUS Alv. Silv.

Additional bibliography: Cárdenas de Guevara, *Act. Bot. Venez.* 10: 37. 1975; Moldenke, *Phytologia* 35: 21. 1976.

PAEPALANTHUS BONGARDI Kunth

Additional bibliography: Moldenke, *Phytologia* 33: 32, 35, 41, & 275. 1976.

PAEPALANTHUS BRACHYPHYLLUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 25: 153--154 (1973) and 30: 83. 1975.

PAEPALANTHUS BRACHYPUS (Bong.) Kunth

Additional bibliography: Moldenke, *Phytologia* 29: 300 & 492 (1974) and 35: 333. 1977.

PAEPALANTHUS BRASILIENSIS (Mart.) Mart.

Additional bibliography: Moldenke, *Phytologia* 29: 300 (1974), 30: 274 (1975), 33: 131 & 191 (1976), and 35: 284. 1977.

PAEPALANTHUS BRITTONI Moldenke

Additional & emended bibliography: Fedde & Schust. in *Just, Bot. Jahresber.* 45 (1): 20. 1923; León, *Fl. Cuba*, imp. 1, 1: 282, 283, & 428, fig. 113. 1946; Moldenke, *Phytologia* 35: 21 & 30. 1976.

Emended illustrations: León, *Fl. Cuba*, imp. 1, 1: 282, fig. 113. 1946.

PAEPALANTHUS BROMELIOIDES Alv. Silv.

Additional bibliography: Monteiro-Scanavacca & Mazzoni, *Bol. Bot. Univ. S. Paulo* 4: [23], 24, & 26, fig. 5 & 7. 1976; Moldenke, *Phytologia* 33: 32 & 130 (1976) and 35: 263. 1977.

Additional illustrations: Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: 26, fig. 5 & 6. 1976.

The Eitens report finding this plant forming "acaulescent clumps" with white flower-heads, along roadsides through a natural rocky campo with "campo rupestre" vegetation, at 1000 m. altitude, flowering in March. Their material was misidentified and distributed as P. vellozioides Körn.

Monteiro-Scanavacca & Mazzoni (1976) report that there is no vegetative reproduction from the inflorescence apex in this species, citing Monteiro-Scanavacca 4902 from Minas Gerais, Brazil.

Additional citations: BRAZIL: Minas Gerais: Eiten & Eiten 10922 (W--2799675, W--2799676).

PAEPALANTHUS BRUNNESCENS Ruhl.

Additional bibliography: Moldenke, Phytologia 25: 158 (1973) and 33: 133. 1976.

PAEPALANTHUS BRUNNEUS Moldenke

Additional bibliography: Moldenke, Phytologia 29: 301. 1974.

Hamann found this plant growing in association with Thurnia sphaerocephala, flowering and fruiting in January.

Additional citations: VENEZUELA: Bolívar: Hamann 2897 (Hm), 2898 (Hm).

PAEPALANTHUS BRYOIDES (Riedel) Kunth

Additional synonymy: Paepalanthus bryoides "(Riedel ex Bong.) Kunth" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 55. 1976.

Additional bibliography: Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 42, 44, 55--56, 98, & 101, pl. 6, fig. 26--30. 1976; Moldenke, Phytologia 35: 21 (1976) and 35: 263 & 289. 1977.

Additional illustrations: Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 44, pl. 6, fig. 26--30. 1976.

Vernacular names recorded for this species are the usual "capim-manso", "capipoatinga-de-musgo", "gravatá-manso", and "sempre-viva-do-campo" and it is said to flower in Santa Catarina from November to March.

PAEPALANTHUS BULBOSUS Alv. Silv.

Additional bibliography: Moldenke, Phytologia 26: 138 (1973) and 29: 491. 1974.

PAEPALANTHUS CABRALENSIS Alv. Silv.

Additional bibliography: Moldenke, Phytologia 26: 138 & 249 (1973) and 33: 272. 1976.

PAEPALANTHUS CACHAMBUENSIS Alv. Silv.

Additional bibliography: Moldenke, Phytologia 26: 138 (1973) and 29: 390. 1974.

PAEPALANTHUS CACUMINIS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 25: 162--163 (1973), 30: 111 (1975), and 35: 263 & 279. 1977.

PAEPALANTHUS CAESPITITUS Mart.

Additional bibliography: Moldenke, *Phytologia* 29: 301 (1974) and 33: 51. 1976.

PAEPALANTHUS CALDENSIS Malme

Additional synonymy: Paepalanthus dusenii "Ruhl. ex Moldenke" apud Moldenke & Sm. in Reitz, *Fl. Ilust. Catar. I Erio*: 101, in syn. 1976. Paepalanthus tortilis var. albidus "Ruhl. ex Moldenke" apud Moldenke & Sm. in Reitz, *Fl. Ilust. Catar. I Erio*: 102, in syn. 1976.

Additional bibliography: Moldenke, *Phytologia* 35: 21. 1976; Moldenke & Sm. in Reitz, *Fl. Ilust. Catar. I Erio*: 42, 44, 51--54, 101, & 102, pl. 6, fig. 21--25. 1976.

Additional illustrations: Moldenke & Sm. in Reitz, *Fl. Ilust. Catar. I Erio*: 44, pl. 6, fig. 21--25. 1976.

Vernacular names recorded for this species are "capim-manso", "capipoatinga-de-caldas", "gravatá-manso", and "sempre-viva-do-campo" and it is said to flower from October to April, but predominantly in December and January.

Additional citations: BRAZIL: Santa Catarina: Smith, Klein, & Hatschbach 15695 (W-2653315).

PAEPALANTHUS CALVUS Körn.

Additional bibliography: Moldenke, *Phytologia* 33: 33 (1976) and 35: 130. 1977.

PAEPALANTHUS CAMPTOPHYLLUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 33: 33 (1976) and 35: 252. 1977.

PAEPALANTHUS CAPANEMAE Alv. Silv.

Additional bibliography: Fedde & Schust. in Just, *Bot. Jahresber.* 45 (1): 20. 1923; Moldenke, *Phytologia* 35: 22. 1976.

Additional citations: BRAZIL: Goiás: Hatschbach, Anderson, Barneby, & Gates 36337 (N); Irwin, Grear, Souza, & Reis dos Santos 12614 (N).

PAEPALANTHUS CAPAROËNSIS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 26: 147 (1973) and 29: 484. 1974.

PAEPALANTHUS CAPILLACEUS Klotzsch

Additional bibliography: Moldenke, *Phytologia* 33: 34. 1976.

Tillett and his associates refer to this plant as "dominant on sandstone in flowing water of river in large beds, the shorter plants from drier, more exposed positions, leaves lustrous, medium to light slightly olive-green, peduncles white, phyllaries

dark-brown, flowers white" and found it in flower in January and February.

Additional citations: VENEZUELA: Amazonas: Tillett, Ferrigni, & Zorrilla F. 751-82 (N).

PAEPALANTHUS CAPILLACEUS var. PROLIFERUS Gleason

Additional bibliography: Moldenke, Phytologia 33: 34. 1976.

Murça Pires encountered this plant in flower and fruit in February.

Additional citations: BRAZIL: Amazônas: Murça Pires 100 [Herb. IPEAN 15080] (Ld).

PAEPALANTHUS CAPILLARIS (Bong.) Körn.

Additional bibliography: Moldenke, Phytologia 26: 190--191 (1973) and 30: 325. 1975.

PAEPALANTHUS CAPILLIFOLIUS Moldenke

Additional synonymy: Paepalanthus filifolius Moldenke, Phytologia 36: 45, in syn. 1977.

Additional bibliography: Hocking, Excerpt. Bot. A.28: 259. 1976; Moldenke, Phytologia 33: 34 (1976), 34: 277 (1976), and 36: 35 & 45. 1977.

Additional citations: BRAZIL: Minas Gerais: Hatschbach, Anderson, Barneby, & Gates 36456 (N--isotype).

PAEPALANTHUS CAPITO Körn.

Additional bibliography: Moldenke, Phytologia 29: 303--304 (1974), 31: 404 (1975), and 33: 134. 1976.

The Anderson, Stieber, & Kirkbride "3556" cited by me in a previous installment of these notes is a typographic error for no. 35568.

PAEPALANTHUS CARDONAE Moldenke

Additional bibliography: Moldenke, Phytologia 29: 304 (1974) and 35: 120. 1977.

PAEPALANTHUS CATHARINAE Ruhl.

Additional synonymy: Paepalanthus catharinae var. catharinae [Ruhl.] apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 46. 1976.

Additional bibliography: Moldenke, Phytologia 35: 22. 1976; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 42, 44--49, & 101, pl. 6, fig. 6--13. 1976.

Illustrations: Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 44, pl. 6, fig. 6--13. 1976.

Vernacular names recorded for this species are "capim-manso", "capipoatinga-catarinense", "gravatá-manso", and "sempre-viva-do-campo" and it is said to bloom from September to February in Santa Catarina.

PAEPALANTHUS CATHARINAE var. HATSCHBACHI (Moldenke) Moldenke & Smith

Additional synonymy: Paepalanthus catharinae var. hatschbachii (Moldenke) Moldenke apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 48, sphalm. 1976.

Additional bibliography: Moldenke, Phytologia 29: 304. 1974; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 45, 48—49, & 101. 1976.

Vernacular names recorded for this plant are "capim-manso", "capipoatinga-de-hatschbach", "gravatá-manso", and "sempre-vivado-campo" and it is said to flower from October to February in Santa Catarina.

PAEPALANTHUS CEARAENSIS Ruhl.

Additional bibliography: Moldenke, Phytologia 29: 304 (1974), 30: 35 & 37 (1975), and 35: 281. 1977.

PAEPALANTHUS CHIQUITENSIS Herzog

Additional bibliography: Moldenke, Phytologia 33: 34—35, 190, & 192 (1976) and 35: 117. 1976.

Cárdenas describes this plant as 60 cm. tall, with white flowers, and encountered it at the edge of an arroyo, at 900 m. altitude, flowering in May.

Additional citations: BOLIVIA: Chiquitos: M. Cárdenas 6255 (N).

PAEPALANTHUS CHRYSOLEPIS Alv. Silv.

Additional bibliography: Moldenke, Phytologia 26: 200 (1973) and 33: 152. 1976.

PAEPALANTHUS CHRYSOPHORUS Alv. Silv.

Additional bibliography: Moldenke, Phytologia 33: 32, 35, & 41 (1976) and 35: 252. 1977.

PAEPALANTHUS CILIATUS (Bong.) Kunth

Additional bibliography: Moldenke, Phytologia 29: 305 (1974), 30: 274 & 275 (1975), 33: 131, 151, & 191 (1976), 35: 284 & 333 (1977), and 36: 35. 1977.

Martins has encountered this plant in sandy soil, flowering in September.

Additional citations: BRAZIL: Guanabara: Martins 405 [Herb. FEEMA 6326] (Z).

PAEPALANTHUS CIPOENSIS Alv. Silv.

Additional bibliography: Moldenke, Phytologia 26: 228. 1973.

The Eitens have found this plant growing on a natural open rocky campo with "campo rupestre" vegetation, at 1250 m. altitude, flowering and fruiting in March.

Additional citations: BRAZIL: Minas Gerais: Eiten & Eiten 11030 (W—2799678).

PAEPALANTHUS CLAUSSENIANUS Körn.

Additional bibliography: Moldenke, *Phytologia* 35: 22 (1976) and 35: 284. 1977.

PAEPALANTHUS COLOIDES Ruhl.

Additional bibliography: Moldenke, *Phytologia* 26: 230--231 (1973), 29: 312 (1974), and 35: 422. 1977.

PAEPALANTHUS COLUMBIENSIS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 30: 22 (1976) and 36: 45. 1977.

Cuatrecasas describes this species as "acaulirossula, hoja crassa, verde clara, flores blancas" and found it in fruit in November. Luteyn and his associates encountered it "in páramo vegetation with Espeletia and Puya", at 3260 m. altitude, flowering in January.

Additional citations: COLOMBIA: Cundinamarca: Cuatrecasas 28252 (W--2581339A, W--2581340A); Luteyn, Dumont, & Lebrón-Luteyn 4720 (N).

PAEPALANTHUS COMANS Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 33: 36 (1976) and 35: 283. 1977.

The Eitens have encountered this species in natural open rocky campos with "campo rupestre" vegetation, at 1250 m. altitude, flowering and fruiting in March. Material has been misidentified and distributed in some herbaria as P. mirabilis Alv. Silv.

Additional citations: BRAZIL: Minas Gerais: Eiten & Eiten 11027 (W--2799680).

PAEPALANTHUS CONDUPLICATUS Körn.

Additional bibliography: Moldenke, *Phytologia* 29: 306 (1974) and 30: 258. 1975.

PAEPALANTHUS CONVEXUS Gleason

Additional bibliography: Moldenke, *Phytologia* 26: 237 (1973), 29: 483 (1974), and 35: 277. 1977.

PAEPALANTHUS CONVEXUS var. STRIGOSUS Moldenke, *Phytologia* 35: 277. 1977.

Bibliography: Moldenke, *Phytologia* 35: 277. 1977.

Citations: BRAZIL: Amazonas: Murça Pires 21 [Herb. IPEAN 14998] (Z--type).

PAEPALANTHUS CORDATUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 33: 36--37 & 191 (1976) and 35: 258. 1977.

PAEPALANTHUS CORYMBOIDES Ruhl.

Additional bibliography: Moldenke, *Phytologia* 26: 239 (1973), 30: 110 (1975), and 35: 279. 1977.

PAEPALANTHUS CORYMBOSUS (Bong.) Kunth

Additional bibliography: Moldenke, Phytologia 29: 301 & 306 (1974), 30: 40, 78, & 111 (1975), and 33: 48, 130, & 201. 1976; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 99. 1976; Moldenke, Phytologia 35: 263 & 279. 1977.

PAEPALANTHUS COSTARICENSIS Moldenke

Additional bibliography: Moldenke, Phytologia 35: 23 & 24 (1976) and 36: 30. 1977.

Additional citations: COSTA RICA: Province undetermined: Horlich s.n. [Bogner 1138] (Mu).

PAEPALANTHUS CRASSICAULIS Körn.

Additional bibliography: Moldenke, Phytologia 33: 37. 1976.

López & Sagástegui have encountered this plant on escarpment slopes, a rather typical habitat.

Additional citations: PERU: Amazonas: Hegewald s.n. [Herb. Hamann 3014] (Hm). Cajamarca: López & Sagástegui 5347 (Ld).

PAEPALANTHUS CRATERIFORMIS Alv. Silv.

Additional bibliography: Moldenke, Phytologia 33: 37. 1976.

Additional citations: BRAZIL: Goiás: Hatschbach, Anderson, Barneby, & Gates 36349 (N).

PAEPALANTHUS CRISTATUS Moldenke

Additional bibliography: Moldenke, Phytologia 33: 37 & 273 (1976) and 35: 304. 1977.

PAEPALANTHUS CRYOCEPHALUS Alv. Silv.

Additional bibliography: Moldenke, Phytologia 33: 37--38 (1976) and 35: 117. 1977.

PAEPALANTHUS CUMBRICOLA Moldenke

Additional bibliography: Moldenke, Phytologia 33: 38 (1976) and 35: 304. 1977.

PAEPALANTHUS DENSIFOLIUS Alv. Silv.

Additional bibliography: Fedde & Schust. in Just, Bot. Jahrbuch. 45 (1): 20. 1923; Moldenke, Phytologia 33: 38 (1976) and 35: 34. 1976.

PAEPALANTHUS DENUDATUS Körn.

Additional bibliography: Moldenke, Phytologia 26: 249--250 (1973), 29: 314 (1974), 30: 99 (1975), and 33: 131 & 191. 1976.

PAEPALANTHUS DIANTHOIDES Mart.

Additional bibliography: Moldenke, Phytologia 26: 251--252 (1973) and 30: 125. 1975.

PAEPALANTHUS DICHOTOMUS Klotzsch

Additional bibliography: Moldenke, Phytologia 29: 307, 483, &

488. 1974.

PAEPALANTHUS DIFFISSUS Moldenke

Additional bibliography: Moldenke, *Phytologia* 30: 73 (1975) and 31: 382. 1975.

PAEPALANTHUS DIFFUSUS Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 26: 254--255 (1973) and 30: 329. 1975.

PAEPALANTHUS DIPLOBETOR Ruhl.

Additional bibliography: Moldenke, *Phytologia* 26: 255--256 (1973) and 35: 283. 1977.

PAEPALANTHUS DUBIUS Körn.

Additional bibliography: Moldenke, *Phytologia* 29: 308 (1974) and 30: 39 & 60. 1975.

PAEPALANTHUS DUIDAE Gleason

Additional bibliography: Moldenke, *Phytologia* 29: 308 (1974) and 31: 404. 1975.

PAEPALANTHUS ELATUS (Bong.) Körn.

Additional bibliography: Moldenke, *Phytologia* 26: 471--473 (1973) and 30: 60. 1975.

PAEPALANTHUS ELONGATULUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 26: 473 (1973) and 35: 255. 1977.

PAEPALANTHUS ELONGATUS (Bong.) Körn.

Additional bibliography: Moldenke, *Phytologia* 35: 23--24 (1976), 35: 451 (1977), and 36: 35. 1977.

PAEPALANTHUS ELONGATUS var. ANGUSTIFOLIUS Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 33: 39. 1976.

Additional citations: BRAZIL: Goiás: Hatschbach, Anderson, Barneby, & Gates 36394 (N).

PAEPALANTHUS ELONGATUS f. GRAMINIFOLIUS Herzog

Additional bibliography: Moldenke, *Phytologia* 35: 24 (1976), 35: 451 (1977), and 36: 35. 1977.

Monteiro has encountered this plant on quartzite, at 1400--1440 m. altitude, and describes it as having "flores muito brancas, lanosas, sépalos castanhos com franjas brancas, concavas; folhas pilosas, base de folhas lanosa, pedúnculo floral muito longo e piloso".

Additional citations: BRAZIL: Minas Gerais: Monteiro S. 230 [Vianna 391; Herb. Dept. Conserv. Ambient. 8080] (Z), s.n. [Herb. Centro. Pesq. Florest. 7670] (Fe).

PAEPALANTHUS ENSIFOLIUS (H.B.K.) Kunth

Additional bibliography: Moldenke, *Phytologia* 35: 23 & 24. 1976.

Holm-Nielsen and his associates have encountered this plant "in humid scrub between dry scrub" in regions of "dry low scrub vegetation, more humid in small hollows and valleys", dominant in areas of dry scrub 1-3 m. tall which are very wet in spring, and on humid grass slopes, at altitudes of 2725-2950 m., flowering and fruiting in April and May. López-Palacios found it in wet soil at 2900 m. altitude, flowering in December.

Additional citations: ECUADOR: Azuay: Holm-Nielsen, Jeppesen, Løjtnant, & Øllgaard 4800 (N), 5071 (N). Loja: Holm-Nielsen, Jeppesen, Løjtnant, & Øllgaard 3664 (N); López-Palacios 4151 (Ld).

PAEPALANTHUS ERECTIFOLIUS Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 35: 24 (1976) and 36: 35. 1977.

Ribeiro refers to the inflorescence-heads of this species as white when fresh, but they certainly blacken very conspicuously in drying! He encountered it in sandy soil on "campo cerrado". Material has been misidentified and distributed in some herbaria as P. claussenianus Körn., a very similar species whose inflorescence-heads apparently do not blacken in drying.

Additional citations: BRAZIL: Rondonia: Ribeiro 1069 [Herb. IPEAN 149759] (Ld).

PAEPALANTHUS ERIOCAULOIDES Ruhl.

Additional bibliography: Moldenke, *Phytologia* 33: 40 & 198. 1976.

PAEPALANTHUS ERIOPHAEUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 26: 483-484 (1973), 29: 484 & 491 (1974), and 30: 103, 266, & 342. 1975.

PAEPALANTHUS EXIGUUS (Bong.) Körn.

Additional bibliography: Moldenke, *Phytologia* 29: 310-312 & 489 (1974), 30: 37, 43, & 86 (1975), 33: 198 (1976), and 36: 74. 1977.

PAEPALANTHUS FALCIFOLIUS Körn.

Additional bibliography: Gilg in Engl., *Syllab. Pflanzenfam.*, ed. 7, 139, fig. 140 (1912), ed. 8, 141, fig. 140 (1919), and ed. 9 & 10, 152, fig. 144. 1924; Diels in Engl., *Syllab. Pflanzenfam.*, ed. 11, 155, fig. 158. 1936; Moldenke, *Phytologia* 33: 40, 131, 145, 191, & 272. 1976.

Additional illustrations: Gilg in Engl., *Syllab. Pflanzenfam.*, ed. 7, 139, fig. 140 (1912), ed. 8, 141, fig. 140 (1919), and ed. 9 & 10, 152, fig. 144. 1924; Diels in Engl., *Syllab. Pflanzenfam.*, ed. 11, 155, fig. 158. 1936.

PAEPALANTHUS FASCICULATUS (Rottb.) Kunth

Additional bibliography: Moldenke, *Phytologia* 35: 24 & 125

(1976), 35: 289 (1977), and 36: 75. 1977.

Material of this species has been misidentified and distributed in some herbaria as P. myocephalus (Mart.) Körn., a taxon of very similar aspect. Ribeiro describes P. fasciculatus as a "planta resteira, flor marron".

Additional citations: GUYANA: Goodland & Maycock 452 (N, W--2548122). BRAZIL: Amazônas: Prance, Berg, Bisby, Steward, Monteiro, & Ramos 17921 (N); Ribeiro 15302 [729] (W--2787919).

PAEPALANTHUS FASCICULATUS f. SPHAEROCEPHALUS Herzog

Additional bibliography: Moldenke, *Phytologia* 35: 25 (1976) and 36: 75. 1977.

Gentry refers to this plant as a "tiny herb [with] whitish inflorescence" and found it growing "in campina-like formation on sand". Lasseign 21169 is a mixture with P. bifidus (Schrad.) Kunth.

Additional citations: BRAZIL: Amazônas: A. Gentry 13391 (Ld); Lasseign 21169 in part (N); Murça Pires & Marinho 15693 [Herb. IPEAN 146606] (Ld); Nascimento, Murça Pires, & Coradin 61 [Herb. IPEAN 148173] (Ld).

PAEPALANTHUS FASCICULIFER Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 29: 324--325 & 482 (1974) and 32: 335. 1975; Anon., *Biol. Abstr.* 61: AC1.667. 1976; Hocking, *Excerpt. Bot. A.* 28: 259. 1976.

PAEPALANTHUS FASCICULIFER var. CAPILLIFOLIUS Moldenke

Additional bibliography: Moldenke, *Phytologia* 35: 25. 1975; Anon., *Biol. Abstr.* 61: AC1.667. 1976; Hocking, *Excerpt. Bot. A.* 28: 259. 1976.

PAEPALANTHUS FILOSUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 29: 326 (1974), 30: 340 (1975), and 36: 281. 1977.

PAEPALANTHUS FLACCIDUS (Bong.) Kunth

Additional bibliography: Moldenke, *Phytologia* 35: 25 (1976) and 35: 252 & 359. 1977.

PAEPALANTHUS FLAVORUTILUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 29: 330 (1974) and 30: 54. 1975.

PAEPALANTHUS FORMOSUS Moldenke

Additional bibliography: Moldenke, *Phytologia* 35: 25 (1976) and 36: 35. 1977.

Additional citations: BRAZIL: Mato Grosso: Prance, Lleras, & Coêlho 19206 (N).

PAEPALANTHUS FRATERNUS N. E. Br.

Additional bibliography: Moldenke, *Phytologia* 33: 41--42 & 133

(1976) and 35: 310. 1977.

PAEPALANTHUS FREYREYSII (Billb.) Körn.

Additional bibliography: Moldenke, *Phytologia* 29: 388—390 (1974), 30: 264 (1975), and 35: 124. 1977.

PAEPALANTHUS FUSCUS Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 29: 392—393 & 477. 1974.

PAEPALANTHUS GARDNERIANUS Walp.

Additional bibliography: Moldenke, *Phytologia* 29: 393—394 (1974), 30: 83 (1975), and 33: 140. 1976.

PAEPALANTHUS GENICULATUS (Bong.) Kunth

Additional bibliography: Moldenke, *Phytologia* 29: 477—478 & 481 (1974) and 30: 114 & 115. 1975.

The Eitens have found this plant growing in fine light-gray sand with some humus content on open hillsides on which there were also areas of small stones and gravel, at 1200 m. altitude, flowering in November.

Additional citations: BRAZIL: Minas Gerais: Eiten & Eiten 6793 (N).

PAEPALANTHUS GLABRIFOLIUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 29: 479—480 & 485 (1974), 30: 51 (1975), and 36: 35. 1977.

Castellanos has found this plant in flower in September.

Additional citations: BRAZIL: Guanabara: A. Castellanos 25643 [Herb. FEEMA 4319] (Z).

PAEPALANTHUS GLAZIOVII Ruhl.

Additional bibliography: Moldenke, *Phytologia* 29: 482—483 (1974) and 33: 140. 1976.

PAEPALANTHUS GLEASONII Moldenke

Additional bibliography: Moldenke, *Phytologia* 29: 483 (1974) and 33: 132. 1976.

PAEPALANTHUS GNEISSICOLA Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 29: 484. 1974.

Strang has encountered this plant in flower in April.

Additional citations: BRAZIL: Minas Gerais: Strang 369 [Herb. FEEMA 1308] (Pf, Z).

PAEPALANTHUS GOMESII Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 29: 484. 1974.

The Macedo 2792 distributed in some herbaria as *P. gomesii* and so cited by me in 1974 actually seems to represent *P. plantagineus* (Bong.) Körn instead.

PAEPALANTHUS GUARAIENSIS Moldenke, *Phytologia* 35: 49--51. 1977.

Bibliography: Moldenke, *Phytologia* 35: 35 & 49--51. 1977.

Illustrations: Moldenke, *Phytologia* 36: 50. 1977.

Citations: BRAZIL: Goiás: Hatschbach & Kummrow 38508 (Z--type).

PAEPALANTHUS HENRIQUEI Alv. Silv. & Ruhl.

Additional synonymy: Eriocaulon henriquei Reitz apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 43 & 49, in syn. 1976. Paepalanthus henriquei "Alv. Silv. & Ruhl. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 101, in syn. 1976.

Additional bibliography: Moldenke, *Phytologia* 29: 491--492 (1974) and 30: 48 & 103. 1975; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 41--45, 99, & 101, pl. 6, fig. 1--6. 1976.

Illustrations: Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 44, pl. 6, fig. 1--5. 1976.

Vernacular names reported for this species are "capim-manso", "capipoatinga-de-henrique", "gravatá-manso", and "sempre-viva-do-campo" and it is said to flower in Santa Catarina in January.

PAEPALANTHUS HILAIREI Körn.

Additional bibliography: Moldenke, *Phytologia* 33: 42, 131, 188, & 191 (1976) and 34: 258. 1976; Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: [23], 24, & 27. 1976.

Monteiro-Scanavacca & Mazzoni (1976) report that there is no vegetative reproduction from the inflorescence apex in this species, citing Monteiro-Scanavacca 4304 from Minas Gerais, Brazil.

PAEPALANTHUS HILAIREI var. **MAXIMILIANI** Ruhl.

Additional bibliography: Moldenke, *Phytologia* 33: 42 & 131 (1976) and 34: 258. 1976.

PAEPALANTHUS HILAIREI var. **PIAUHYENSIS** Ruhl.

Additional bibliography: Moldenke, *Phytologia* 29: 495 & 499--500. 1974.

PAEPALANTHUS HILAIREI var. **POHLIANUS** Moldenke

Additional bibliography: Moldenke, *Phytologia* 29: 495 & 500. 1974.

PAEPALANTHUS HISPIDISSIMUS Herzog

Additional bibliography: Moldenke, *Phytologia* 33: 42--43 (1976) and 35: 255. 1977.

PAEPALANTHUS HYDRA Ruhl.

Synonymy: Paepalanthus hydra "Ruhl. in Engl." apud Hocking, Excerpt. Bot. A.26: 90. 1975.

Additional bibliography: Moldenke, *Phytologia* 35: 26 (1976) and 35: 263 & 279. 1977.

PAEPALANTHUS INTERMEDIUS Körn.

Additional bibliography: Moldenke, *Phytologia* 33: 43 & 275. 1976.

PAEPALANTHUS ITAMBEENSIS Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 30: 21 (1975) and 33: 183. 1976.

PAEPALANTHUS ITATIAIENSIS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 35: 26. 1976.
Additional citations: BRAZIL: Minas Gerais: Bogner 1157 (Mu, Z—photo). Rio de Janeiro: Carauta 928 [Herb. FEEMA 7425] (Ld).

PAEPALANTHUS ITHYPHYLLUS (Mart.) Mart.

Additional bibliography: Moldenke, *Phytologia* 30: 22--24, 103, & 275 (1975), 33: 191 (1976), and 35: 118. 1977.

PAEPALANTHUS JAUENSIS Moldenke

Additional bibliography: Moldenke, *Phytologia* 35: 27. 1976.
Additional citations: MOUNTED ILLUSTRATIONS: Mem. N. Y. Bot. Gard. 23: 851, fig. 5. 1972 (N—photo).

PAEPALANTHUS KARSTENII Ruhl.

Additional bibliography: Cárdenas de Guevara, *Act. Bot. Venez.* 10: 38. 1975; Anon., *Biol. Abstr.* 61: ACL.667. 1976; Moldenke, *Phytologia* 35: 27. 1976.

PAEPALANTHUS KARSTENII var. SUBSESSILIS (Moldenke) Moldenke

Additional bibliography: Moldenke, *Phytologia* 4: 205 (1953) and 35: 27. 1976; Anon., *Biol. Abstr.* 61: ACL.667. 1976.
Additional citations: VENEZUELA: Mérida: Hamann 2888 (Hm), 2889 (Hm).

PAEPALANTHUS KILLIPII Moldenke

Additional bibliography: Moldenke, *Phytologia* 30: 29--30 & 117 (1975) and 33: 148. 1976.
Additional citations: VENEZUELA: Bolívar: Steyermark, Dunster-ville, & Dunsterville 92619 (W-2584522).

PAEPALANTHUS LAMARCKII Kunth

Additional & emended bibliography: Sweet, *Hort. Brit.*, ed. 2, 597. 1830; Loud., *Hort. Brit.*, ed. 2, 719. 1832; Sweet, *Hort. Brit.*, ed. 3, 719. 1839; León, *Fl. Cuba*, imp. 1, 1: 283 & 428. 1946; Moldenke, *Phytologia* 35: 19 & 27--28 (1976), 35: 125, 281, 338, & 359 (1977), and 36: 40, 65, & 75. 1977.

Goodland has encountered this species in "grassland with scattered trees, Curatella, Byrsonima, Trachypogon, and Fimbristylis dominant".

Both Sweet (1830) and Loudon (1832) list this species as grown in British gardens, introduced from Guyana in 1825, doubtless in a greenhouse as a specimen plant. They refer to it as the "fascicled

pipewort".

The Aubréville 226, distributed as P. lamarckii, actually is P. bifidus (Schrad.) Kunth.

Additional citations: GUYANA: Goodland 609 (N, W—2548121). BRAZIL: Pará: Pinheiro & Carvalho 429 (Ld). MOUNTED ILLUSTRATIONS: Meikle & Baldwin, Am. Journ. Bot. 29: 48 & 50. 1952 (W); Kunth, Enum. Pl. descrip. (W).

PAEPALANTHUS LANCEOLATUS Körn.

Additional bibliography: Moldenke, Phytologia 35: 28 (1976) and 35: 255, 263, & 279. 1977.

PAEPALANTHUS LANGSDORFFII (Bong.) Körn.

Additional bibliography: Moldenke, Phytologia 30: 40—42 (1975) and 31: 404. 1975.

PAEPALANTHUS LANGSDORFFII var. CARACENSIS Moldenke

Additional bibliography: Moldenke, Phytologia 30: 41—42 (1975) and 31: 404. 1975.

PAEPALANTHUS LAXIFOLIUS Körn.

Additional bibliography: Moldenke, Phytologia 30: 42—43 & 111 (1975) and 35: 263 & 279. 1977.

PAEPALANTHUS LEISERINGII Ruhl.

Additional synonymy: Paepalanthus leiseringii var. leiseringii [Ruhl.] apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 69. 1976.

Additional bibliography: Moldenke, Phytologia 30: 43—44. 1975; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 42, 62, 63, 69—72, & 101, pl. 8, fig. 13—19. 1976.

Vernacular names recorded for this plant are "capim-manso", "capipoatinga-de-leisering", "gravatá-manso", and "sempre-vivado campo" and it is said to flower in April in Santa Catarina.

PAEPALANTHUS LEISERINGII var. KLEINII Moldenke & Smith

Additional bibliography: Moldenke, Phytologia 30: 44. 1975; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 62, 63, 70—72, & 101, pl. 8, fig. 13—19. 1976.

Illustrations: Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 63, pl. 8, fig. 13—19. 1976.

Vernacular names reported for this plant are the expected "capim-manso", "capipoatinga-de-klein", "gravatá-manso", and "sempre-viva-do-campo" and it is said to flower in December in Santa Catarina.

PAEPALANTHUS LEUCOBLEPHARUS Körn.

Additional bibliography: Moldenke, Phytologia 30: 16, 44—45, & 54 (1975) and 35: 257. 1977.

PAEPALANTHUS LEUCOCEPHALUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 30: 45--46 (1975) and 33: 147. 1976.

PAEPALANTHUS LEUCOCYANEUS Tutin

Additional bibliography: Moldenke, *Phytologia* 30: 37 & 46--47 (1975) and 35: 120. 1977.

PAEPALANTHUS LODICULOIDES Moldenke

Additional bibliography: Anon., *Biol. Abstr.* 61: AC1.667. 1976; Moldenke, *Phytologia* 33: 48--50 (1976) and 34: 256. 1976.

PAEPALANTHUS LODICULOIDES var. *FLOCCOSUS* Moldenke

Additional bibliography: Anon., *Biol. Abstr.* 61: AC1.667. 1976; Moldenke, *Phytologia* 35: 28. 1976.

PAEPALANTHUS LONGICAULIS Alv. Silv.

Additional bibliography: Moldenke, *Phytologia* 30: 51--52 (1975) and 31: 404. 1975.

PAEPALANTHUS LONGICAULIS var. *GLABER* Moldenke

Additional bibliography: Moldenke, *Phytologia* 30: 52 (1975) and 31: 404. 1975.

PAEPALANTHUS LUNDII Körn.

Additional bibliography: Moldenke, *Phytologia* 33: 49 & 184 (1976) and 35: 255. 1977.

PAEPALANTHUS LÜTZELBURGII Herzog

Additional bibliography: Moldenke, *Phytologia* 30: 45 & 54 (1975) and 35: 257. 1977.

Hatschbach has found this plant growing "na matinha de solo arenoso, sombria, do topo de morro", flowering and fruiting in January.

Additional citations: BRAZIL: Bahia: Hatschbach 39618 (Z).

PAEPALANTHUS MACROCEPHALUS (Bong.) Körn.

Additional bibliography: Moldenke, *Phytologia* 30: 56--59, 323, & 341 (1975) and 33: 149. 1976.

PAEPALANTHUS MACRORRHIZUS (Bong.) Kunth

Additional bibliography: Moldenke, *Phytologia* 30: 59--61, 122, & 269. 1975.

PAEPALANTHUS MANICATUS var. *PULVINATUS* Herzog

Additional bibliography: Moldenke, *Phytologia* 30: 75--76 (1975) and 33: 35. 1976.

PAEPALANTHUS MARTIANUS Körn.

Additional bibliography: Moldenke, *Phytologia* 30: 76--77 (1975) and 33: 191. 1976.

PAEPALANTHUS MELALEUCUS (Bong.) Kunth

Additional bibliography: Moldenke, *Phytologia* 30: 77--78 & 111 (1975), 33: 130 (1976), and 35: 262, 263, & 279. 1977.

PAEPALANTHUS MESETICOLA Moldenke & Steyermark

Additional bibliography: Moldenke, *Phytologia* 35: 28 (1976) and 36: 32. 1977.

PAEPALANTHUS MEXIAE Moldenke

Additional bibliography: Moldenke, *Phytologia* 33: 51 (1976) and 35: 257. 1977.

PAEPALANTHUS MICROCAULON Ruhl.

Additional bibliography: Moldenke, *Phytologia* 33: 51 (1976) and 34: 259. 1976.

Additional citations: BRAZIL: Minas Gerais: Hatschbach, Anderson, Barneby, & Gates 36567 (N).

PAEPALANTHUS MYOCEPHALUS (Mart.) Körn.

Additional bibliography: Moldenke, *Phytologia* 33: 51 & 52 (1976) and 35: 125. 1977.

The Ribeiro 15302, distributed as P. myocephalus, actually is P. fasciculatus (Rottb.) Kunth.

PAEPALANTHUS OCHROCEPHALUS Körn.

Additional bibliography: Moldenke, *Phytologia* 30: 100--101 (1975) and 33: 191. 1976.

Recent collectors have encountered this plant in wet sandy restinga, flowering in January.

Additional citations: BRAZIL: Bahia: Lanna 754 [A. Castellanos 25504; Herb. FEEMA 5791] (Z).

PAEPALANTHUS OXYPHYLLUS Körn.

Additional bibliography: Moldenke, *Phytologia* 33: 53. 1976.

Additional citations: BRAZIL: Goiás: Hatschbach, Anderson, Barneby, & Gates 36373 (N).

PAEPALANTHUS OYAPOCKENSIS Herzog

Additional bibliography: Moldenke, *Phytologia* 30: 106--107 (1975), 33: 134 (1976), 35: 34 (1976), 35: 112 & 359 (1977) and 36: 65. 1977.

PAEPALANTHUS PAULINUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 30: 112. 1975; Monteiro-Scanavacca & Mazzoni, *Bol. Bot. Univ. S. Paulo* 4: [23]--25 & 27, fig. 3. 1976.

Illustrations: Monteiro-Scanavacca & Mazzoni, *Bol. Bot. Univ. S. Paulo* 4: 25, fig. 3. 1976.

Monteiro-Scanavacca & Mazzoni (1976) report that there is no vegetative reproduction from the apex of the inflorescence in this species, citing Monteiro-Scanavacca 4296 from Minas Gerais,

Brazil.

PAEPALANTHUS PERPLEXANS Moldenke

Additional bibliography: Cárdenas de Guevara, Act. Bot. Venez. 10: 38. 1975; Moldenke, Phytologia 30: 116--117. 1975.

PAEPALANTHUS PERPUSILLUS Kunth

Additional bibliography: Moldenke, Phytologia 30: 113 & 117--119 (1975) and 35: 124. 1977.

PAEPALANTHUS PHAEOCEPHALUS Ruhl.

Additional bibliography: Moldenke, Phytologia 33: 54 & 192. 1976.

Additional citations: BRAZIL: Goiás: Hatschbach, Anderson, Barneby, & Gates 36363 (N).

PAEPALANTHUS PHELPSAE Moldenke

Synonymy: Paepalanthus phlepsae Moldenke, Phytologia 36: 45, in syn. 1977.

Additional bibliography: Moldenke, Phytologia 30: 121 (1975) and 36: 45. 1977.

Additional citations: MOUNTED ILLUSTRATIONS: Mem. N. Y. Bot. Gard. 23: 853, fig. 6. 1972 (N--photo).

PAEPALANTHUS PILOSUS (H.E.K.) Kunth

Additional bibliography: Moldenke, Phytologia 35: 29 (1976) and 35: 350 & 354. 1977.

Additional citations: COLOMBIA: Antioquia: Barkley & Saldarriaga 43018 (Ac, Bm).

PAEPALANTHUS PLANIFOLIUS (Bong.) Körn.

Additional synonymy: Eriocaulon iridifolium (Kunth) Steud. apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 67 & 99, in syn. 1976. Eriocaulon monticola (Mart.) Steud. apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 67 & 99, in syn. 1967. Eriocaulon vaginans "ex Ruhl." apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 100, in syn. 1976. Paepalanthus planifolius var. planifolius [(Bong.) Körn.] apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 66. 1976.

Additional bibliography: Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 42, 62, 63, 66--68, & 98--102, pl. 8, fig. 8--15. 1976; Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: [23]--27, fig. 4 & 7. 1976; Moldenke, Phytologia 35: 29 (1976) and 35: 259. 1977.

Additional illustrations: Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: 25 & 26, fig. 4 & 7. 1976.

Eiten has encountered this species in open marshy ground with scattered low shrubs and low tree-ferns, periodically burned, flowering and fruiting in October. Vernacular names recorded for it are the usual "capim-manso", "capipoatinga", "gravatá-manso",

and "sempre-viva-do-campo" and it is said to flower throughout the year in Santa Catarina.

Monteiro-Scanavacca & Mazzoni (1976) report that there is no vegetative reproduction from the inflorescence apex in this species, citing Monteiro-Scanavacca 4895 from Minas Gerais, Brazil.

Additional citations: BRAZIL: Amazônas: Merxmüller s.n. [1968] (Hm). Minas Gerais: Strang 1070 [Castellanos 26653; Herb. Brad. 60456] (Ld), 25410 [Herb. FEEMA 4218] (Ld). São Paulo: G. Eiten 6384 (N).

PAEPALANTHUS PLANIFOLIUS var. GLOBULIFER (Alv.) Silv. Moldenke & Smith

Additional bibliography: Moldenke, Phytologia 30: 256--258 & 260--262. 1975; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 62, 63, 66--68, & 102, pl. 8, fig. 8--12. 1976.

Additional illustrations: Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 63, pl. 8, fig. 8--15. 1976.

Vernacular names reported for this plant are "capim-manso", "capipoatinga-de-bola", "gravatá-manso", and "sempre-viva-do-campo" and it is said to flower in October and November in Santa Catarina.

PAEPALANTHUS PLANIFOLIUS var. PUBERULUS (Körn.) Ruhl.

Additional bibliography: Moldenke, Phytologia 30: 256 & 259--262. 1975.

PAEPALANTHUS PLANTAGINEUS (Bong.) Körn.

Additional bibliography: Moldenke, Phytologia 35: 29 & 34. 1976.

The Macedo collection, cited below, was previously inaccurately cited by me as P. gomesii Alv. Silv., a taxon of similar general appearance. It was collected in flower in December.

Additional citations: BRAZIL: Minas Gerais: Macedo 2792 (N, S).

PAEPALANTHUS PLUMIPES Alv. Silv.

Additional bibliography: Moldenke, Phytologia 33: 56, 132, & 191. 1976.

PAEPALANTHUS POLYANTHUS (Bong.) Kunth

Additional synonymy: Paepalanthus polyanthus f. polyanthus [(Bong.) Kunth] apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 57. 1976.

Additional bibliography: Moldenke, Phytologia 35: 23 & 29--30. 1976; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 42, 57--62, 98, 100, & 102, pl. 7. 1976.

Additional illustrations: Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 59, pl. 7. 1976.

The Eitens have encountered this species in natural open rocky campo with "campo rupestre" vegetation, growing in rock clefts in outcropping rock on the open campo, at 1250 m. altitude, flowering in March, the flower-heads described as "white". Other recent

collectors have found it growing on quartzite. Vernacular names recorded for it are "capim-manso", "capipoatinga-de-mil-flores", "gravatá-manso", and "sempre-viva-do-campo" and it is said to flower from December to April in Santa Catarina.

Additional citations: BRAZIL: Minas Gerais: Eiten & Eiten 11038 (W-2799679); Hatschbach, Anderson, Barneby, & Gates 36426 (N, N); Monteiro de S. 243 [Vianna 404; Herb. FEEMA 8093] (Ld).

PAEPALANTHUS POLYANTHUS f. VILLOSUS (Beauverd) Moldenke & Smith

Additional synonymy: Paepalanthus polyanthus var. villosus apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 102, sphalm. 1976.

Additional bibliography: Moldenke, Phytologia 33: 56. 1976; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 57, 61--62, & 102. 1976.

Vernacular names recorded for this plant are, as for the typical form, "capim-manso", "capipoatinga-de-mil-flores", "gravatá-manso", and "sempre-viva-do campo" and it is said to flower in January and February in Santa Catarina.

PAEPALANTHUS POLYTRICHOIDES Kunth

Additional bibliography: Moldenke, Phytologia 35: 30 (1976), 35: 112, 117, & 338 (1977), and 36: 35 & 84. 1977.

Additional citations: BRAZIL: Rondonia: Cordeiro 865 [Herb. IPEAN 152404] (Ld).

PAEPALANTHUS POLYTRICHOIDES f. VILLOSUS Moldenke

Additional bibliography: Moldenke, Phytologia 30: 318 & 320 (1975) and 35: 117. 1977.

PAEPALANTHUS PUNGENS Griseb.

Additional & emended bibliography: León, Fl. Cuba, imp. 1, 1: 283 & 428. 1946; Moldenke, Phytologia 35: 21 & 30. 1976.

PAEPALANTHUS PUNGENS var. BREVIFOLIUS Moldenke

Additional bibliography: Moldenke, Phytologia 33: 57 (1976) and 34: 254. 1976.

PAEPALANTHUS RAMOSUS (Wikstr.) Kunth

Additional bibliography: Moldenke, Phytologia 35: 30--31. 1976.

Moreira found this plant in full anthesis in May.

Additional citations: BRAZIL: Guanabara: Moreira 77 [Herb. FEEMA 6645] (Pf).

PAEPALANTHUS RAMOSUS var. AFFINIS (Bong.) Ruhl.

Additional bibliography: Moldenke, Phytologia 35: 31. 1976.

Additional citations: BRAZIL: Rio de Janeiro: Pabst 7350 [Herb. Brad. 25323] (N).

PAEPALANTHUS REGALIS Mart.

Additional bibliography: Moldenke, *Phytologia* 30: 335--336 (1975) and 33: 274. 1976.

PAEPALANTHUS REPENS (Lam.) Körn.

Additional bibliography: Anon., *Biol. Abstr.* 61: AC1.667. 1976; Moldenke, *Phytologia* 35: 31 (1976) and 36: 81. 1977.

PAEPALANTHUS RETUSUS C. Wright

Additional & emended bibliography: León, *Fl. Cuba*, imp. 1, 1: 283 & 428. 1946; Moldenke, *Phytologia* 36: 31. 1976.

PAEPALANTHUS RIPARIUS Moldenke

Additional & emended bibliography: León, *Fl. Cuba*, imp. 1, 1: 283 & 428. 1946; Moldenke, *Phytologia* 33: 131--132. 1976.

PAEPALANTHUS SAXICOLA Körn.

Additional bibliography: Moldenke, *Phytologia* 33: 136--139 (1976), 35: 111, 119, 336, & 431 (1977), and 36: 35. 1977.

PAEPALANTHUS SAXICOLA var. PILOSUS Moldenke, *Phytologia* 35: 111. 1977.

Bibliography: Moldenke, *Phytologia* 35: 111 (1977) and 36: 35. 1977.

Citations: BRAZIL: Goiás: Hatschbach 36832 (Z--type).

PAEPALANTHUS SCIRPEUS Mart.

Additional bibliography: Moldenke, *Phytologia* 35: 31. 1976; Monteiro-Scanavacca & Mazzoni, *Bol. Bot. Univ. S. Paulo* 4: [105]. 1976; Monteiro-Scanavacca, Mazzoni, & Giulietti, *Bol. Bot. Univ. S. Paulo* 4: [6], 62, 66, & 67, fig. 1 & 2. 1976.

Illustrations: Monteiro-Scanavacca, Mazzoni, & Giulietti, *Bol. Bot. Univ. S. Paulo* 4: 67, fig. 1 & 2. 1976.

Monteiro-Scanavacca and her associates (1976) report that this species reproduces vegetatively from the apex of the inflorescence, producing complete plantlets with leaves, stem, and adventitious roots, citing Damásio s.n. [June 1908] from Minas Gerais, Brazil.

PAEPALANTHUS SENAEANUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 35: 32 (1976) and 35: 333. 1977.

The Eiten & Eiten 11027, distributed as P. mirabilis Alv. Silv., actually is P. comans Alv. Silv.

PAEPALANTHUS SESLERIOIDES Griseb.

Additional synonymy: Dupatia seslerioides Griseb. ex Moldenke, *Phytologia* 36: 42, in syn. 1977.

Additional & emended bibliography: León, *Fl. Cuba*, imp. 1, 1: 281 & 428. 1946; Moldenke, *Phytologia* 34: 485 (1976), 35: 32--33 (1976), and 36: 31 & 42. 1977; Moldenke, *Biol. Abstr.* 63: 2452.

1977.

PAEPALANTHUS SESLERIOIDES var. CARABIAE Moldenke

Additional bibliography: Moldenke, *Phytologia* 34: 485 (1976), 35: 32 (1976), and 36: 31. 1977; Moldenke, *Biol. Abstr.* 63: 2452. 1977.

PAEPALANTHUS SESLERIOIDES var. WILSONII Moldenke

Additional bibliography: Moldenke, *Phytologia* 34: 485 (1976), 35: 33 (1976), and 36: 31. 1977; Moldenke, *Biol. Abstr.* 63: 2452. 1977.

PAEPALANTHUS SINGULARIUS Moldenke

Additional bibliography: Moldenke, *Phytologia* 33: 188. 1976.

Campbell and his associates describe this plant as herbaceous, to 5 cm. tall, the "old flower-heads brown", and found it growing on "campina in sun on white sand", fruiting in June.

Additional citations: BRAZIL: Pará: Campbell, Ongley, Ramos, Monteiro, & Nelson P.22542 (Z).

PAEPALANTHUS SPECIOSUS (Bong.) Körn.

Additional bibliography: Moldenke, *Phytologia* 33: 189--198 (1976), 34: 276 & 395 (1976), 35: 24, 30, & 33 (1976), and 35: 258, 284, 421, & 422. 1977.

PAEPALANTHUS SPECIOSUS var. ANGUSTIFOLIUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 33: 192--194 & 196. 1976.

Hatschbach has encountered this plant, flowering in July, on a "campo cerrado solo rochoso encosta de morro".

Additional citations: BRAZIL: Goiás: Hatschbach 38775 (Ld).

PAEPALANTHUS STEYERMARKII Moldenke

Additional bibliography: Cárdenas de Guevara, *Act. Bot. Venez.* 10: 37. 1975; Moldenke, *Phytologia* 35: 33. 1976.

PAEPALANTHUS STUEBELIANUS Ruhl.

Additional bibliography: Moldenke, *Phytologia* 33: 274--275. 1976.

Additional citations: PERU: Amazonas: Hegewald s.n. [Herb. Hamann 3013] (Hm).

PAEPALANTHUS SUBTILIS Miq.

Additional bibliography: Moldenke, *Phytologia* 35: 112--114, 309, 310, 322, & 333 (1977) and 36: 65 & 74. 1977.

The Donselaar & Donselaar 359, distributed as P. subtilis, actually is Syngonanthus simplex (Miq.) Ruhl.

PAEPALANTHUS TESSMANNII Moldenke

Additional bibliography: Moldenke & Sm. in Reitz, *Fl. Ilust. Catar. I Erio*: 42, 44, 49--51, 100, & 102, pl. 6, fig. 14--20.

1976; Moldenke, *Phytologia* 35: 121. 1977.

Illustrations: Moldenke & Sm. in Reitz, *Fl. Ilust. Catar. I* Erio: 44, pl. 6, fig. 14--20. 1976.

Dombrowski has encountered this species in wet campos and swamps, where she reports it frequent, and in brejo (sedge meadow) where she reports it abundant. She found it in flower in November and December and in fruit in December.

Vernacular names for the species are "capim-manso", "capipoatinga-de-tessmann", "gravatá-manso", and "sempre-viva-do-campo" and it is said to flower from November to January in Santa Catarina.

Additional citations: BRAZIL: Paraná: Dombrowski 5441 (Ld), 5552 (Ld), 5571 (Ld), 5616 (Ld), 5845 (Ld).

PAEPALANTHUS TORTILIS (Bong.) Mart.

Additional bibliography: Moldenke, *Phytologia* 35: 122--127 & 281 (1977) and 36: 35, 51, 74, & 75. 1977.

The Martius 551, distributed as typical P. tortilis and so cited by me in 1976, is now regarded as the type collection of var. glaberrimus Mart. & Moldenke.

Additional citations: BRAZIL: Bahia: Lanna Sobrinho 763 [A. Castellanos 25513; Herb. FEEMA 6035; Herb. Cent. Pesq. Florest. 5718] (Ld, Pf).

PAEPALANTHUS TORTILIS var. GLABERRIMUS Mart. & Moldenke ex Moldenke, *Phytologia* 36: 51. 1977.

Synonymy: Eriocaulon tortile var. glabra Mart. ex Moldenke, *Résumé Suppl. 1*: 18, in syn. 1959. Eriocaulon tortile var. glabra, subsimplex Mart. ex Moldenke, *Phytologia* 25: 239, in syn. 1973. Eriocaulon tortile var. glaberrimum Mart., in herb.

Bibliography: Moldenke, *Phytologia* 36: 35 & 51. 1977.

Strang has found this plant growing in wet turf, flowering and fruiting in August. The variety has previously been confused with and regarded as identical to the typical form of the species, but it seems to me now to be sufficiently distinct to merit nomenclatural recognition, as Martius originally suggested. The synonymy of the species needs to be restudied to determine which names actually belong to the present variety.

Citations: BRAZIL: Guanabara: Strang 678 [Herb. Cent. Pesq. Florest. 5040] (Pf). Rio de Janeiro: Martius 551 (B--isotype, B--isotype, Br--isotype, C--type, E--isotype, Mu--isotype, S--isotype, Z--isotype).

PAEPALANTHUS TORTILIS var. MINOR Moldenke

Additional bibliography: Moldenke, *Phytologia* 35: 126--127 (1977) and 36: 35. 1977.

PAEPALANTHUS VENUSTUS Moldenke, *Mem. N. Y. Bot. Gard.* 9: 281--282.

1957 [not P. venustus Alv. Silv., sphalm. 1928].

Additional bibliography: Moldenke, *Phytologia* 35: 264. 1977.

PHILODICE Mart.

Additional bibliography: Cárdenas de Guevara, Act. Bot. Venez. 10: 38 & [69]. 1975; Moldenke, Phytologia 35: 286--292, 304, 309, & 510 (1977) and 36: 508. 1977.

PHILODICE HOFFMANNSEGGII Mart.

Additional bibliography: Cárdenas de Guevara, Act. Bot. Venez. 10: 38. 1975; Moldenke, Phytologia 35: 287, 289--292, & 304. 1977.

RONDONANTHUS Herzog

Additional bibliography: Cárdenas de Guevara, Act. Bot. Venez. 10: 38 & [69]. 1975; Moldenke, Phytologia 34: 509 (1976) and 35: 292--295 & 511. 1977.

RONDONANTHUS MICROPETALUS Moldenke

Additional bibliography: Cárdenas de Guevara, Act. Bot. Venez. 10: 38. 1975; Moldenke, Phytologia 35: 293--294. 1977.

RONDONANTHUS RORAIMAE (Oliv.) Herzog

Additional synonymy: Rondonanthus roraimae (Oliv.) Herzog apud Cárdenas de Guevara, Act. Bot. Venez. 10: 38, sphalm. 1975.

Additional bibliography: Cárdenas de Guevara, Act. Bot. Venez. 10: 38. 1975; Moldenke, Phytologia 35: 294--295. 1977.

SYNGONANTHUS Ruhl.

Additional synonymy: Syngonanthus Ruhl. ex Alv. Silv., Fl. Mont. 1: 396, sphalm. 1928. Mutia Mart. ex Moldenke, Résumé Suppl. 1: 19, in syn. 1959.

Additional & emended bibliography: Engl., Syllab. Pflanzenfam., ed. 3, 92 (1903), ed. 5, 94 (1907), and ed. 6, 99. 1909; Gilg in Engl., Syllab. Pflanzenfam., ed. 7, 138 (1912), ed. 8, 140 (1919), and ed. 9 & 10, 152. 1924; Diels in Engl., Syllab. Pflanzenfam., ed. 11, 154. 1936; León, Fl. Cuba, imp. 1, 1: 379, 283--284, 435, & 436. 1946; Moldenke, Mem. N. Y. Bot. Gard. 9: 175. 1955; Cárdenas de Guevara, Act. Bot. Venez. 10: 36, 38--39, & [69]. 1975; J. A. Steyerl., Act. Bot. Venez. 10: 225, 226, & 232. 1975; Hocking, Excerpt. Bot. A.28: 259. 1976; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 5, 62, 63, 76--94, & 99--103. 1976; Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: [23]--27, fig. 2. 1976; Moldenke, Phytologia 35: 288, 295--322, 332--364, 420--458, & 511 (1977) and 36: 32, 35, 36, 40, 42, 45, 47, 54--85, 116, 470, 487, 493, 506, 510, & 511. 1977.

SYNGONANTHUS ANDROSACEUS (Griseb.) Ruhl.

Additional & emended bibliography: León, Fl. Cuba, imp. 1, 1: 283 & 435. 1946; Moldenke, Phytologia 35: 306 & 312--313. 1977.

SYNGONANTHUS ANOMALUS (Körn.) Ruhl.

Additional bibliography: Cárdenas de Guevara, Act. Bot. Venez. 10: 36 & 39. 1975; Moldenke, Phytologia 35: 307, 315--317, 341, 345, & 356. 1977.

Additional citations: BRAZIL: Amazônas: Prance, Berg, Bisby, Stewart, Monteiro, & Ramos 17814 (N).

SYNGONANTHUS ANTHEMIFLORUS (Bong.) Ruhl.

Additional bibliography: Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: [23]--25 & 27, fig. 2. 1976; Moldenke, Phytologia 35: 303, 317--320, 339, 435, 438, 439, & 456 (1977) and 36: 63. 1977.

Additional illustrations: Monteiro-Scanavacca & Mazzoni, Bol. Bot. Univ. S. Paulo 4: 25, fig. 2, 1976.

Monteiro-Scanavacca & Mazzoni (1976) report that there is no vegetative reproduction from the inflorescence apex in this species, citing Giulietti 4063 from Minas Gerais, Brazil.

Additional citations: BRAZIL: Minas Gerais: Hatschbach, Ander-son, Barneby, & Gates 36442 (N).

SYNGONANTHUS ARTHROTRICHUS Alv. Silv.

Additional bibliography: Moldenke, Phytologia 35: 334--335 & 450. 1977.

SYNGONANTHUS BAHIENSIS Moldenke

Additional bibliography: Moldenke, Phytologia 35: 337. 1977.

Additional citations: BRAZIL: Bahia: Davidse, Ramamoorthy, & Vital 11932 (Id).

SYNGONANTHUS BALDWINI Moldenke

Additional bibliography: Moldenke, Phytologia 35: 337 (1977) and 36: 35. 1977.

SYNGONANTHUS BARBATUS Alv. Silv.

Additional bibliography: Moldenke, Phytologia 35: 337 & 446. 1977.

SYNGONANTHUS BELLUS Moldenke

Additional bibliography: Moldenke, Phytologia 35: 338 (1977) and 36: 84. 1977.

SYNGONANTHUS BIFORMIS (N. E. Br.) Gleason

Additional bibliography: Moldenke, Phytologia 35: 339--341 (1977) and 36: 63, 64, 72, & 74. 1977.

SYNGONANTHUS BISUMBELLATUS (Steud.) Ruhl.

Additional bibliography: Moldenke, Phytologia 35: 342--344 (1977) and 36: 35. 1977.

SYNGONANTHUS CANDIDUS var. BAHIENSIS Moldenke

Additional bibliography: Moldenke, Phytologia 35: 349. 1977.

Hatschbach has found this plant growing in "solo arenoso junto a correço" and "a afloramentos de arenito", flowering and fruiting in January.

Additional citations: BRAZIL: Bahia: Hatschbach 39568 (Ld).
39700 (Ld).

SYNGONANTHUS CAULESCENS (Poir.) Ruhl.

Additional synonymy: Eriocaulon surinamense "Liq. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 100, in syn. 1976. Paepalanthus caulescens (Bong.) Kunth apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 90, in syn. 1976. Paepalanthus caulescens var. humilis Kunth apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 89, in syn. 1976. Paepalanthus caulescens var. parvifolius Kunth apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 89, in syn. 1976. Paepalanthus splendens "Mart. ex Körn." apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 102, in syn. 1976. Syngonanthus clavescens "Ruhl. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilustr. Catar. I Erio: 103, in syn. sphalm. 1976. Syngonanthus caulescens "(Pois.) Ruhl. ex Moldenke" apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 103, in syn. 1976. Syngonanthus caulescens var. caulescens [(Poir.) Ruhl.] apud Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 89. 1976.

Additional bibliography: Hocking, Excerpt. Bot. A.28: 259. 1976; Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 77, 84, 83--94, & 98--103, pl. 9, fig. 10--22. 1976; Moldenke, Phytologia 35: 420--423 & 453 (1977) and 36: 33, 35, & 64--66. 1977.

Additional illustrations: Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 85, pl. 9, fig. 10--22. 1976.

Hatschbach has found this plant growing in "brejo borda da chapada". Vernacular names reported for it are "capim-manso", "capipoatinga-açu", "gravatá-manso", and "sempre-viva-do-campo" and it is said to flower from October to February in Santa Catarina, Brazil.

Additional citations: BRAZIL: Bahia: Hatschbach 39413 (Ld).
Mato Grosso: France, Lleras, & Coêlho 19232 (N).

SYNGONANTHUS CAULESCENS var. ANGUSTIFOLIUS Moldenke

Additional bibliography: Moldenke & Sm. in Reitz, Fl. Ilust. Catar. I Erio: 89, 92--93, & 103. 1976; Moldenke, Phytologia 35: 420 (1977) and 36: 33 & 35. 1977.

Vernacular names recorded for this variety are identical to those for the typical form of the species listed above.

SYNGONANTHUS CAULESCENS var. DISCRETIFOLIUS Moldenke

Additional bibliography: Moldenke, Phytologia 35: 364 (1977) and 36: 35. 1977.

SYNGONANTHUS CAULESCENS f. LONGIPES Moldenke

Additional bibliography: Hocking, Excerpt. Bot. A.28: 259. 1976; Moldenke, Phytologia 35: 421. 1977.

[to be continued]